

Title (en)

A METHOD OF GENERATING A RADIOTHERAPY TREATMENT PLAN, COMPUTER PROGRAM AND COMPUTER SYSTEM FOR GENERATING A RADIOTHERAPY TREATMENT PLAN, AND RADIOTHERAPY DELIVERY SYSTEM

Title (de)

VERFAHREN ZUR ERZEUGUNG EINES STRAHLENTHERAPIEBEHANDLUNGSPLANS, COMPUTERPROGRAMM UND COMPUTERSYSTEM ZUR ERZEUGUNG EINES STRAHLENTHERAPIEBEHANDLUNGSPLANS UND STRAHLENTHERAPIEABGABESYSTEM

Title (fr)

PROCÉDÉ DE GÉNÉRATION D'UN PLAN DE TRAITEMENT PAR RADIOTHÉRAPIE, PROGRAMME INFORMATIQUE ET SYSTÈME INFORMATIQUE POUR GÉNÉRER UN PLAN DE TRAITEMENT PAR RADIOTHÉRAPIE ET SYSTÈME D'ADMINISTRATION DE RADIOTHÉRAPIE

Publication

**EP 3881896 A1 20210922 (EN)**

Application

**EP 20163850 A 20200318**

Priority

EP 20163850 A 20200318

Abstract (en)

A method of optimizing a radiotherapy treatment plan for delivering charged particles to a patient by pencil beam scanning, involves optimizing the treatment plan using an optimization problem that is designed to allow spots to differ in at least one of shape and orientation, and optionally also in size. This enables the optimization spots so as to cover the target in the best possible way and with a sharp penumbra along the outer edges of the target. The invention also relates to a computer program product and a computer system for use in such planning and a treatment delivery system for delivering such a plan.

IPC 8 full level

**A61N 5/10** (2006.01)

CPC (source: EP US)

**A61N 5/1031** (2013.01 - EP US); **A61N 5/1043** (2013.01 - EP US); **A61N 2005/1087** (2013.01 - EP US)

Citation (search report)

- [X] EP 3421085 A1 20190102 - RAYSEARCH LAB AB [SE]
- [X] US 2017281980 A1 20171005 - WULFF JOERG [DE]
- [Y] WO 2019164835 A1 20190829 - UNIV PENNSYLVANIA [US]
- [Y] US 2004104354 A1 20040603 - HABERER THOMAS [DE], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3881896 A1 20210922**; CN 115038496 A 20220909; JP 2023519136 A 20230510; US 2023112426 A1 20230413; WO 2021185794 A1 20210923

DOCDB simple family (application)

**EP 20163850 A 20200318**; CN 202180011730 A 20210316; EP 2021056603 W 20210316; JP 2022552269 A 20210316; US 202117906439 A 20210316